LDWSF
12.3.148.1
10/21/2011

MANSON CONSTRUCTION CO.
5209 EAST MARGINAL WAY S. • SEATTLE, WA 98134 • (206) 762-0850
MAILING ADDRESS: P. O. BOX 24067 • SEATTLE, WA 98124-0067
WA CONTRACTOR'S LICENSE #MANSOCC032M1 • FAX (206) 764-8595

Re: Response to Supplemental Request for Information Pursuant to Section 104(e) of CERCLA, for the Lower Duwamish Waterway Superfund Site, Seattle, Washington

Site: 5209 East Marginal Way S, Seattle, WA 98134
5225 East Marginal Way S, Seattle, WA 98134

King County Parcels: 1924049041 and 1924049067

Exhibit D

Memorandum – 21 October 2011

From: John Stilwell

To: John Heckel

Subject: Results of Investigation Regarding PCB Oil-Filled Transformers at Manson Seattle Yard

John,

I conducted a survey of the Lofgren Distribution system and other rigs currently at Manson Seattle Yard.

The only rig with oil-filled transformers is the Lofgren.

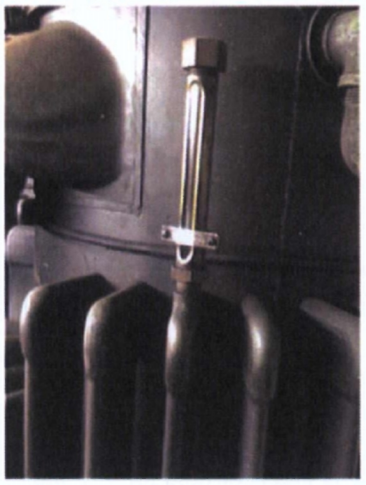
To my best knowledge, it is the only rig on the West Coast that has oil filled transformers. I believe it is likely the only rig in Manson possession with oil-filled transformers that I am aware of.

I reviewed the EPA pcb inspection guidelines (link below)

http://epa.gov/oecaerth/resources/publications/monitoring/tsca/manuals/pcbinspect/pcbinspect4.pdf

Per the guidelines we have 4 transformers that definitely have or had PCB containing fluids in them.

Transformers 1 through 4 (shown below) are filled with PCB fluid.



Particulars on the single phase transformers:

Number	High Voltage	Low Voltage	KVA	Oil Capacity	Manufacturer	Date
1	2400VAC	120VAC	150	110 Gallons	Allis Chalmers	1964
2	2400VAC	480VAC	150	74 Gallons	G.E.	1964
3	2400VAC	480VAC	150	74 Gallons	G.E.	1964
4	2400VAC	480VAC	150	74 Gallons	G.E.	1965

Repectfully,

John Stilwell

Digitally signed by John Stilwell
DN: cn=John Stilwell, o=Manson Construction, ou=Electrical Department, email=jstilwell@mansonconstruction.com, c=US
Date: 2011.10.21 15:00:07 -07'00'

John Stilwell

OIL FILLED TRANSFORMER INFO.

BARGE TRANSFORMERS

NUMBER	MAKE	SERIAL #	KVA	GALLONS	PPM/PCB	DATE	DATE DESTROYED
1	Moloney	703892	1000	507	<1	08/10/00	**10/27/00**
2	Moloney	703893	1000	507	<1	08/10/00	**10/27/00**
3	Moloney	703894	1000	507	<1	08/10/00	**10/27/00**
4	Gregory	5026575	100	47	4.57	08/10/00	**10/27/00**
5	Gregory	(No Tag)	100	47	<1	08/10/00	**10/27/00**
6	Allis Chalmers	2305997	100	63	5.26	08/10/00	**10/27/00**
7	Westinghouse	229376	N/A	N/A	<1	08/10/00	**10/27/00**
8	Westinghouse	109527B	N/A	N/A	<1	08/10/00	**10/27/00**
9	Oil Filled Circuit Breaker (Pacific Electric)	4222	N/A	70	<1	08/10/00	**10/27/00**
10 (WEST)	No Name Transformer	76A220010	N/A	N/A	<1	08/10/00	10/27/00
11	Moloney	703891	1000	507	<1	07/01/00	**09/01/00**
12	Moloney	703889	1000	507	<1	07/01/00	**09/01/00**
13	Moloney	703890	1000	507	<1	07/01/00	**09/01/00**
14	General Electric	2297058	1667	1100	6.2	07/01/00	**09/01/00**
15	General Electric	2297057	1667	1100	7.7	07/01/00	**09/01/00**
16	General Electric	4680071	1667	880	1.6	07/01/00	**09/01/00**
17	Westinghouse	76A431368	25	N/A	<1	10/24/00	**12/01/00**
18	General Electric (Oil Filled Circuit Breaker)	(can't read) GEH1772	N/A	N/A	<1	10/24/00	**12/01/00**

3/2/

10/23/2000

#'s 1 - 10 trucked out w/Nelson Trucking for Coleman Calbag-recvd 1-10-01

#'s 17 & 18 waiting for PCB Report from Laucks Lab - Ann Ho-recvd-and recvd destroy date-1-10-01

See 2nd page

MANSON CONSTRUCTION CO.

OIL FILLED TRANSFORMER INFO.

BARGE TRANSFORMERS

NUMBER	MAKE	SERIAL #	KVA	GALLONS	PPM/PCB	DATE	DATE DESTROYED
1	General Electric	8922679	0.5	6.5	<2	09/14/01	SENT TO COLMAN 12/27
2	General Electric	9063623	0.5	6.5	<2	09/14/01	
3	General Electric	9029520	Ratio 40/1	6.5	<2	09/14/01	
4	General Electric	9486795	Ratio 40/1	6.5	<2	09/14/01	

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063

Chemistry, Microbiology, and Technical Services

CLIENT: Manson Construction
PO Box 24067
Seattle, WA 98124

ATTN : Shawn Hillis

Work ID : Transformers
Taken By : Client
Transported by: Client
Type : Oil

Certificate of Analysis

Work Order# : 00-07-451
DATE RECEIVED : 07/21/00
DATE OF REPORT: 08/10/00

SAMPLE IDENTIFICATION:

	Sample Description
01	Moloney 703892
02	Moloney 703893
03	Moloney 703894
04	Gregory 5026575
05	Gregory (No Tag)
06	Allis Chalmers 2305997
07	Westinghouse 229376
08	Westinghouse 1095278
09	Pacific Electric 4222
10	No Name Transformer N/A

FLAGGING:

The flag "U" indicates that the analyte of interest was not detected to the limit of detection indicated.

ATTACHMENTS:

Following presentation of sample results, the following appendices are attached to this report:

Appendix A: Method Blank Report
Appendix B: Blank Spike Recovery Report
Appendix C: Chain-of-Custody

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063

Chemistry, Microbiology, and Technical Services

CLIENT : Manson Construction

Certificate of Analysis

Work Order# : 00-07-451

Unless otherwise instructed all samples will be discarded on 09/18/00 with the exception of samples which are consumed during the analysis, such as microbiological samples.

Respectfully submitted,
Laucks Testing Laboratories, Inc.

J. M. Owens

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063

Chemistry, Microbiology, and Technical Services

CLIENT : Manson Construction

Certificate of Analysis

Work Order # 00-07-451

TESTS PERFORMED AND RESULTS:

Analyte	Units	01	02	03	04
PCBs	mg/kg	1.0 U	1.0 U	1.0 U	4.57

Analyte	Units	05	06	07	08
PCBs	mg/kg	1.0 U	5.26	1.0 U	1.0 U

Analyte	Units	09	10
PCBs	mg/kg	1.0 U	1.0 U

Laucks Since 1908
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940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

Appendix A

Method Blank Report

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

Quality Control Report
Method Blanks for Work Order 0007451

Blank Name	Samples Verified	Test Description	Result	Units	Control Limit
B072500_GPX_M01	1-10	Total PCBs in Material	2.0 U	mg/kg AR	4.0

A method blank can validate more than one analyte on more than one work order. The method blanks in this report may validate analytes not determined on this work order, but nonetheless determined in the associated blank.

Because they validate more than one work order, method blank results are not always reported in the same concentration units or to the same detection limits that are used for sample results.

* = blank exceeds control limit

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

Appendix B

Blank Spike Recovery Report

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063

Chemistry, Microbiology, and Technical Services

Quality Control Report
Blank Spike Report for Work Order 0007451

Blank Spike Names						
Database	Lab Assigned	Fractions Verified	Analyte Name	Recov	LCL	UCL
S072500_GPXM01	S072500GPXOL	1-10	Aroclor 1242	87	20	160
S072500_GPXS01	S072500GPXOL	1-10	Aroclor 1242	87	20	160

* = Value Exceeds Control Limit
LCL = Lower Control Limit
UCL = Upper Control Limit

A blank spike can validate the results for more than one work order. For this reason, results for analytes not requested on this work order may appear in this blank spike report.

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

Appendix C

Chain-of-Custody

THIS INFORMATION WILL BE USED FOR REPORTING/BILLING (SEE BELOW)

COMPANY: MANSON CONST.

ADDRESS: P.O Box 24067
SEA, WA 98124

ATTENTION: SHAWN HILLS

PROJECT NAME: TRANSFORMERS

PROJECT CONTACT: SHAWN HILLS

TELEPHONE: 206 7648552 FAX: 206 7648550

JOB/P.O. NO.:

CHAIN OF CUSTODY RECORD

22143

SDG # _____

PAGE _____ OF _____

WORK ORDER ID# 0007461

Laucks Testing Laboratories, Inc.

SUBMITTED AT:
- ☐ 940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063
- ☐ 1106 Ledwich Ave., Yakima, WA 98902 (509) 248-4695 FAX 452-1265

TESTS TO PERFORM

LAB'S #	SAMPLE ID / LOCATION	DATE	TIME	MATRIX: WATER, SOIL OR SPECIFY	NO. OF CONTAINERS	OBSERVATIONS / COMMENTS / SPECIAL INSTRUCTIONS
	see attached sheet					

A. A standard turnaround time is assumed unless otherwise marked.

B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

INSTRUCTIONS

1. *USE ONE LINE PER SAMPLE.*
2. *BE SPECIFIC IN TEST REQUESTS.*
3. *CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.*

BILLING INFORMATION IF DIFFERENT THAN ABOVE

NAME ADDRESS

ATTN: CITY, STATE, ZIP

*** RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL**

TOTAL NO. OF CONTAINERS

TURNAROUND REQUEST
- ☐ STD. 10-14 WORKING DAYS
- * ☐ 24-48 HRS. (100% SUR)
- * ☐ 72 HRS. (75% SUR)
- * ☐ 5 DAYS (50% SUR)
- ☐ OTHER: _____
- ☐ TEMP

CUSTODY ☐ Y ☐ N ☐ N/A

RELINQUISHED BY: SIGN AND PRINT	DATE / TIME	RECEIVED BY: SIGN AND PRINT	DATE / TIME
			7/21/00 14:00

FINAL REPORT COPY

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

Certificate of Analysis

CLIENT: Manson Construction
PO Box 24067
Seattle, WA 98124

Work Order# : 00-10-340
DATE RECEIVED : 10/12/00
DATE OF REPORT: 10/27/00

ATTN : Shawn Hillis

Work ID : PCB in oil
Taken By : Client
Transported by: Client
Type : Oil in Transformers/Circuit B

SAMPLE IDENTIFICATION:

	Sample Description		Sample Description
01	#17 76A431368	02	#18 can't read

COMMENTS FOR PCB OIL ANALYSIS:

Due to the matrix, the retention time for tetrachloro-m-xylene shifted slightly. TCMX was manually assigned for the blank, blank spike and both samples.

FLAGGING:

The flag "U" indicates the analyte of interest was not detected, to the limit of detection indicated.

ATTACHMENTS:

Following presentation of sample results, the following appendices are attached to this report:

Appendix A: Method Blank Report
Appendix B: Blank Spike Recovery Report

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063

Chemistry, Microbiology, and Technical Services

CLIENT : Manson Construction

Certificate of Analysis

Work Order# : 00-10-340

Unless otherwise instructed all samples will be discarded on 12/10/00 with the exception of samples which are consumed during the analysis, such as microbiological samples.

Respectfully submitted,
Laucks Testing Laboratories, Inc.

J. M. Owens

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063

Chemistry, Microbiology, and Technical Services

CLIENT : Manson Construction

Certificate of Analysis

Work Order # 00-10-340

TESTS PERFORMED AND RESULTS:

Analyte	Units	01	02
PCBs	mg/kg	1.0 U	1.0 U

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

Appendix A

Method Blank Report

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

Quality Control Report
Method Blanks for Work Order 0010340

Blank Name	Samples Verified	Test Description	Result	Units	Control Limit
B101600_GPX_M01	1-2	Total PCBs in Material	2.0 U	mg/kg AR	4.0

A method blank can validate more than one analyte on more than one work order. The method blanks in this report may validate analytes not determined on this work order, but nonetheless determined in the associated blank.

Because they validate more than one work order, method blank results are not always reported in the same concentration nits or to the same detection limits that are used for sample results.

* = blank exceeds control limit

Laucks Since 1908
Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063
Chemistry, Microbiology, and Technical Services

Appendix B

Blank Spike Recovery Report

Laucks Testing Laboratories, Inc.
940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX (206) 767-5063

Chemistry, Microbiology, and Technical Services

Quality Control Report
Blank Spike Report for Work Order 0010340

Blank Spike Names						
Database	Lab Assigned	Fractions Verified	Analyte Name	Recov	LCL	UCL
S101600_GPXM01	S101600GPXOL	1-2	Aroclor 1242	62	20	160

* = Value Exceeds Control Limit
LCL = Lower Control Limit
UCL = Upper Control Limit

A blank spike can validate the results for more than one work order. For this reason, results for analytes not requested on this work order may appear in this blank spike report.

Analytical ChemTech International, Inc.
4011 Power Inn Road, Sacramento, CA 95826

PHONE 916•455•2284
FAX 916•455•0191
24 HR. PGR 916•328•5512
WEB actiinc.com

Polychlorinated Biphenyls (PCBs) Report
EPA Method 8082

ASET POWER SYSTEMS SERVICES
25329 74TH AVE.
S., KENT, WA 98032
ATTN: CRAIG DICKENS

Account: ASET
PCB Report #: 81708
Date Received: 13-Jul-00
Date Reported: 14-Jul-00
P.O. Number: 10577
Project ID:
Lab Contact: Jawied Anwar

Sample Identification	Serial Number	Lab Control #	Date Analyzed	Matrix	Results (PPM)	PCB Aroclor	Rpt.Lim. (PPM)
MANSON	703891	594039	14-Jul-00	OIL	<1	ND	1.0
MANSON	2297058	594040	14-Jul-00	OIL	6.2	1260	1.0
MANSON	2297057	594041	14-Jul-00	OIL	7.7	1254-60	1.0
MANSON	4680071	594042	14-Jul-00	OIL	1.6	1260	1.0
MANSON	703889	594043	14-Jul-00	OIL	<1	ND	1.0
MANSON	703890	594044	14-Jul-00	OIL	<1	ND	1.0

tations: Oils reporting units (mg/Kg). Solids dry wt.reporting units (mg/Kg).
Wipe reporting units in micrograms (ug)
Quality Control documention available upon request.

CA DOHS ELAP Accreditation/Certificate Number 2130

QC Chemist: JA / AB

ACTI
Analytical ChemTech International, Inc.
4011 Power Inn Road, Sacramento, CA 95826
PHONE 916•455•2284
FAX 916•455•0191
24 HR. PGR 916•328•5512
WEB actiinc.com

ASET POWER SYSTEMS SERVICES
25329 74TH AVE.
S., KENT, WA 98032
ATTN: CRAIG DICKENS

P.O. #.: 10577

Location: MANSON
Serial #: 703891
Bank/Ph:
Tank: MAIN
Fluid: MIN
Breathing: SEAL

Mfr: MOLONEY
KV: 13.2
KVA:
Container: C795
Project ID.: 10577

Account: ASET
Report #: 500830
Control #: 594039
Received: 13-Jul-00
Reported: 14-Jul-00
E-Reported: 14-Jul-00

ASTM D-3612
Report Units: PPM

Dissolved Gas Analysis

	Lab Control Number:	594039
	Date Sampled:	11-Jul-00
	ACTI Report Number:	500830
	Oil Temp (C):	20
	Hydrogen (H2):	29
	Methane (CH4):	6
	Ethane (C2H6):	11
	Ethylene (C2H4):	6
	Acetylene (C2H2):	0
	Carbon Monoxide (CO):	75
	Carbon Dioxide (CO2):	1052
	Nitrogen (N2):	36000
	Oxygen (O2):	12231
	Total Gas:	49410
	Total Combustible Gas:	127
	Equivalent TCG Percent:	0.2499

Oil Screen

D-1533B	Moisture in Oil (ppm):		24
	% Saturation at Top Oil Temp:		44
D-971	Interfacial Tension (dynes/cm):		11
D-974	Acid Number (mg KOH/g):		978
D-1500	Color Number (Relative):		L3.5
D-1524	Visual Exam. (Relative):		CLR&SPRK
D-1524	Sediment Exam. (Relative):		LIGHT
D-877	Dielectric Breakdown (kV):		41
D-1816	Dielectric Breakdown(kV mm-C):		
D-924	Power Factor-25C (%):		
D-924	Power Factor-100C (%):		
D-1298	Specific Gravity (Relative):		.875

Diagnostics

DGA Key Gas / Interpretive Method: (Most recent sample)	Hydrogen within normal limits (500ppm). Methane within normal limits (100ppm). Ethane within normal limits (50ppm). Ethylene within normal limits (50ppm). Acetylene within normal limits (1ppm). Carbon Monoxide within normal limits (1000ppm) Carbon Dioxide within normal limits (10000ppm). Oxygen within normal limits (20000ppm).
DGA Rogers Ratio Method:	Ratios not applicable - gases do not exceed limits.
DGA Cellulose (paper) Insulation:	CO2/CO Ratio not applicable-neither gas exceeds its flag point.
DGA IEEE/ANSI (C57.104-1991): (Two most recent samples)	
Moisture in Oil:	Moisture content acceptable for continued use (35 max@<=69KV).
Interfacial Tension:	**IFT below limit, reclamation or disposal of oil recommended (25 min@<=69KV).**
Acid Number:	**Acid number exceeds limit, reclamation or disposal of oil recommended (.20 max@<=69**
Color Number, Visual, and Sediment:	**Color number not acceptable, Visual acceptable, Sediment detected.**
Dielectric Breakdown:	D-877 value acceptable(26 min). D-1816 Not Analyzed.
* KV Class is 13.2 kV. Power Factor:	Not Analyzed.

ACTI
Analytical ChemTech International, Inc.
4011 Power Inn Road, Sacramento, CA 95826
PHONE 916•455•2284
FAX 916•455•0191
24 HR. PGR 916•328•5512
WEB actiinc.com

ASET POWER SYSTEMS SERVICES
25329 74TH AVE.
S., KENT, WA 98032
ATTN: CRAIG DICKENS

P.O. #.: 10577

Location: MANSON
Serial #: 2297058
Bank/Ph:
Tank: MAIN
Fluid: MIN
Breathing: SEAL

Mfr: GE
KV: 13.2
KVA:
Container: D964
Project ID.: 10577

Account: ASET
Report #: 500831
Control #: 594040
Received: 13-Jul-00
Reported: 14-Jul-00
E-Reported: 14-Jul-00

ASTM D-3612
Report Units: PPM

Dissolved Gas Analysis

Lab Control Number:	594040
Date Sampled:	11-Jul-00
ACTI Report Number:	500831
Oil Temp (C):	20
Hydrogen (H2):	133
Methane (CH4):	5
Ethane (C2H6):	31
Ethylene (C2H4):	7
Acetylene (C2H2):	0
Carbon Monoxide (CO):	101
Carbon Dioxide (CO2):	1313
Nitrogen (N2):	40314
Oxygen (O2):	11973
Total Gas:	53877
Total Combustible Gas:	277
Equivalent TCG Percent:	0.6501

Oil Screen

D-1533B	Moisture in Oil (ppm):	45
	% Saturation at Top Oil Temp:	81
D-971	Interfacial Tension (dynes/cm):	12
D-974	Acid Number (mg KOH/g):	.296
D-1500	Color Number (Relative):	G8.0
D-1524	Visual Exam. (Relative):	CLR&SPRK
D-1524	Sediment Exam. (Relative):	LIGHT
D-877	Dielectric Breakdown (kV):	26
D-1816	Dielectric Breakdown(kV mm-C):	
D-924	Power Factor-25C (%):	
D-924	Power Factor-100C (%):	
D-1298	Specific Gravity (Relative):	.881

Diagnostics

DGA Key Gas / Interpretive Method: (Most recent sample)	Hydrogen within normal limits (500ppm). Methane within normal limits (100ppm). Ethane within normal limits (50ppm). Ethylene within normal limits (50ppm). Acetylene within normal limits (1ppm). Carbon Monoxide within normal limits (1000ppm). Carbon Dioxide within normal limits (10000ppm). Oxygen within normal limits (20000ppm).
DGA Rogers Ratio Method:	Ratios not applicable - gases do not exceed limits.
DGA Cellulose (paper) Insulation:	CO2/CO Ratio not applicable-neither gas exceeds its flag point.
DGA IEEE/ANSI (C57.104-1991): (Two most recent samples)	
Moisture in Oil:	**Moisture content exceeds limit for continued use (35 max@<=69KV).**
Interfacial Tension:	**IFT below limit, reclamation or disposal of oil recommended (25 min@<=69KV).**
Acid Number:	**Acid number exceeds limit, minor reconditioning recommended (.20 max@<=69KV).**
Color Number, Visual, and Sediment:	**Color number not acceptable, Visual acceptable, Sediment detected.**
Dielectric Breakdown:	D-877 value acceptable(26 min). D-1816 Not Analyzed.
* KV Class is 13.2 kV. Power Factor:	Not Analyzed.

ACTI
Analytical ChemTech International, Inc.
4011 Power Inn Road, Sacramento, CA 95826
PHONE 916•455•2284
FAX 916•455•0191
24 HR. PGR 916•328•5512
WEB actiinc.com

ASET POWER SYSTEMS SERVICES
25329 74TH AVE.
S., KENT, WA 98032
ATTN: CRAIG DICKENS

P.O. #.: 10577

Location: MANSON
Serial #: 2297057
Bank/Ph:
Tank: MAIN
Fluid: MIN
Breathing: SEAL

Mfr: GE
KV: 13.2
KVA:
Container: F301
Project ID.: 10577

Account: ASET
Report #: 500832
Control #: 594041
Received: 13-Jul-00
Reported: 14-Jul-00
E-Reported: 14-Jul-00

ASTM D-3612
Report Units: PPM

Dissolved Gas Analysis

Lab Control Number:	594041
Date Sampled:	11-Jul-00
ACTI Report Number:	500832
Oil Temp (C):	20
Hydrogen (H2):	0
Methane (CH4):	2
Ethane (C2H6):	0
Ethylene (C2H4):	0
Acetylene (C2H2):	0
Carbon Monoxide (CO):	13
Carbon Dioxide (CO2):	380
Nitrogen (N2):	37590
Oxygen (O2):	12798
Total Gas:	50783
Total Combustible Gas:	15
Equivalent TCG Percent:	0.0222

Oil Screen

D-1533B	Moisture in Oil (ppm):	27
	% Saturation at Top Oil Temp:	52
D-971	Interfacial Tension (dynes/cm):	18
D-974	Acid Number (mg KOH/g):	.073
D-1500	Color Number (Relative):	L4.0
D-1524	Visual Exam. (Relative):	CLR&SPRK
D-1524	Sediment Exam. (Relative):	ND
D-877	Dielectric Breakdown (kV):	41
D-1816	Dielectric Breakdown(kV mm-C):	
D-924	Power Factor-25C (%):	
D-924	Power Factor-100C (%):	
D-1298	Specific Gravity (Relative):	.882

Diagnostics

DGA Key Gas / Interpretive Method: (Most recent sample)	Hydrogen within normal limits (500ppm). Methane within normal limits (100ppm). Ethane within normal limits (50ppm). Ethylene within normal limits (50ppm). Acetylene within normal limits (1ppm). Carbon Monoxide within normal limits (1000ppm). Carbon Dioxide within normal limits (10000ppm). Oxygen within normal limits (20000ppm).
DGA Rogers Ratio Method:	Ratios not applicable - gases do not exceed limits.
DGA Cellulose (paper) Insulation:	CO2/CO Ratio not applicable-neither gas exceeds its flag point.
DGA IEEE/ANSI (C57.104-1991): (Two most recent samples)	
Moisture in Oil:	Moisture content acceptable for continued use (35 max@<=69KV).
Interfacial Tension:	**IFT below limit, minor reconditioning recommended (25 min@<=69KV).**
Acid Number:	Acid number acceptable for continued use (.20 max@<=69KV).
Color Number, Visual, and Sediment:	**Color number not acceptable, Visual acceptable, Sediment not detected.**
Dielectric Breakdown:	D-877 value acceptable(26 min), D-1816 Not Analyzed.
* KV Class is 13.2 kV. Power Factor:	Not Analyzed.

Analytical ChemTech International, Inc.
4011 Power Inn Road, Sacramento, CA 95826

PHONE 916•455•2284
FAX 916•455•0191
24 HR. PGR 916•328•5512
WEB actiinc.com

ASET POWER SYSTEMS SERVICES
25329 74TH AVE.
S., KENT, WA 98032
ATTN: CRAIG DICKENS

P.O. #.: 10577

Location: MANSON
Serial #: 4680071
Bank/Ph:
Tank: MAIN
Fluid: MIN
Breathing: SEAL

Mfr: GE
KV: 13.2
KVA:
Container: A819
Project ID.: 10577

Account: ASET
Report #: 500833
Control #: 594042
Received: 13-Jul-00
Reported: 14-Jul-00
E-Reported: 14-Jul-00

ASTM D-3612
Report Units: PPM

Dissolved Gas Analysis

Lab Control Number:	594042
Date Sampled:	11-Jul-00
ACTI Report Number:	500833
Oil Temp (C):	20
Hydrogen (H2):	0
Methane (CH4):	2
Ethane (C2H6):	4
Ethylene (C2H4):	3
Acetylene (C2H2):	0
Carbon Monoxide (CO):	24
Carbon Dioxide (CO2):	487
Nitrogen (N2):	30963
Oxygen (O2):	11683
Total Gas:	43166
Total Combustible Gas:	33
Equivalent TCG Percent:	0.0488

Oil Screen

D-1533B	Moisture in Oil (ppm):	16
	% Saturation at Top Oil Temp:	30
D-971	Interfacial Tension (dynes/cm):	20
D-974	Acid Number (mg KOH/g):	.061
D-1500	Color Number (Relative):	L2.5
D-1524	Visual Exam. (Relative):	CLR&SPRK
D-1524	Sediment Exam. (Relative):	ND
D-877	Dielectric Breakdown (kV):	38
D-1816	Dielectric Breakdown(kV mm-C):	
D-924	Power Factor-25C (%):	
D-924	Power Factor-100C (%):	
D-1298	Specific Gravity (Relative):	.884

Diagnostics

DGA Key Gas / Interpretive Method: (Most recent sample)	Hydrogen within normal limits (500ppm). Methane within normal limits (100ppm). Ethane within normal limits (50ppm). Ethylene within normal limits (50ppm). Acetylene within normal limits (1ppm). Carbon Monoxide within normal limits (1000ppm). Carbon Dioxide within normal limits (10000ppm). Oxygen within normal limits (20000ppm).
DGA Rogers Ratio Method:	Ratios not applicable - gases do not exceed limits.
DGA Cellulose (paper) Insulation:	CO2/CO Ratio not applicable-neither gas exceeds its flag point.
DGA IEEE/ANSI (C57.104-1991): (Two most recent samples)	
Moisture in Oil:	Moisture content acceptable for continued use (35 max@<=69KV).
Interfacial Tension:	**IFT below limit, minor reconditioning recommended (25 min@<=69KV).**
Acid Number:	Acid number acceptable for continued use (.20 max@<=69KV).
Color Number, Visual, and Sediment:	**Color number not acceptable, Visual acceptable, Sediment not detected.**
Dielectric Breakdown:	D-877 value acceptable(26 min). D-1816 Not Analyzed.
Power Factor:	Not Analyzed.

* KV Class is 13.2 kV.

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4011 Power Inn Road, Sacramento, CA 95826

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ASET POWER SYSTEMS SERVICES
25329 74TH AVE.
S., KENT, WA 98032
ATTN: CRAIG DICKENS

P.O. #.: 10577

Location: MANSON
Serial #: 703889
Bank/Ph:
Tank: MAIN
Fluid: MIN
Breathing: SEAL

Mfr: MOLONEY
KV: 13.2
KVA:
Container: I213
Project ID.: 10577

Account: ASET
Report #: 500834
Control #: 594043
Received: 13-Jul-00
Reported: 14-Jul-00
E-Reported: 14-Jul-00

ASTM D-3612
Report Units: PPM

Dissolved Gas Analysis

Lab Control Number:	594043
Date Sampled:	11-Jul-00
ACTI Report Number:	500834
Oil Temp (C):	20
Hydrogen (H2):	21
Methane (CH4):	9
Ethane (C2H6):	20
Ethylene (C2H4):	13
Acetylene (C2H2):	0
Carbon Monoxide (CO):	81
Carbon Dioxide (CO2):	675
Nitrogen (N2):	39345
Oxygen (O2):	13646
Total Gas:	54110
Total Combustible Gas:	144
Equivalent TCG Percent:	0.2107

Oil Screen

D-1533B	Moisture in Oil (ppm):	17
	% Saturation at Top Oil Temp:	31
D-971	Interfacial Tension (dynes/cm):	15
D-974	Acid Number (mg KOH/g):	.161
D-1500	Color Number (Relative):	L3.5
D-1524	Visual Exam. (Relative):	CLR&SPRK
D-1524	Sediment Exam. (Relative):	ND
D-877	Dielectric Breakdown (kV):	45
D-1816	Dielectric Breakdown(kV mm-C):	
D-924	Power Factor-25C (%):	
D-924	Power Factor-100C (%):	
D-1298	Specific Gravity (Relative):	.889

Diagnostics

DGA Key Gas / Interpretive Method: (Most recent sample)	Hydrogen within normal limits (500ppm). Methane within normal limits (100ppm). Ethane within normal limits (50ppm). Ethylene within normal limits (50ppm). Acetylene within normal limits (1ppm). Carbon Monoxide within normal limits (1000ppm). Carbon Dioxide within normal limits (10000ppm). Oxygen within normal limits (20000ppm).
DGA Rogers Ratio Method:	Ratios not applicable - gases do not exceed limits.
DGA Cellulose (paper) Insulation:	CO2/CO Ratio not applicable-neither gas exceeds its flag point.
DGA IEEE/ANSI (C57.104-1991): (Two most recent samples)	
Moisture in Oil:	Moisture content acceptable for continued use (35 max@<=69KV).
Interfacial Tension:	**IFT below limit, reclamation or disposal of oil recommended (25 min@<=69KV).**
Acid Number:	Acid number acceptable for continued use (.20 max@<=69KV).
Color Number, Visual, and Sediment:	**Color number not acceptable, Visual acceptable, Sediment not detected.**
Dielectric Breakdown:	D-877 value acceptable(26 min), D-1816 Not Analyzed.
* KV Class is 13.2 kV. Power Factor:	Not Analyzed.

Analytical ChemTech International, Inc.
4011 Power Inn Road, Sacramento, CA 95826

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WEB actiinc.com

ASET POWER SYSTEMS SERVICES
25329 74TH AVE.
S., KENT, WA 98032
ATTN: CRAIG DICKENS

P.O. #.: 10577

Location: MANSON
Serial #: 703890
Bank/Ph:
Tank: MAIN
Fluid: MIN
Breathing: SEAL

Mfr: MOLONEY
KV: 13.2
KVA:
Container: F988
Project ID.: 10577

Account: ASET
Report #: 500835
Control #: 594044
Received: 13-Jul-00
Reported: 14-Jul-00
E-Reported: 14-Jul-00

ASTM D-3612
Report Units: PPM

Dissolved Gas Analysis

Lab Control Number:	594044
Date Sampled:	11-Jul-00
ACTI Report Number:	500835
Oil Temp (C):	20
Hydrogen (H2):	262
Methane (CH4):	9
Ethane (C2H6):	44
Ethylene (C2H4):	8
Acetyiene (C2H2):	0
Carbon Monoxide (CO):	118
Carbon Dioxide (CO2):	1557
Nitrogen (N2):	37240
Oxygen (O2):	11937
Total Gas:	51175
Total Combustible Gas:	441
Equivalent TCG Percent:	1 2271

Oil Screen

D-1533B	Moisture in Oil (ppm):	30
	% Saturation at Top Oil Temp:	56
D-971	Interfacial Tension (dynes/cm):	12
D-974	Acid Number (mg KOH/g):	550
D-1500	Color Number (Relative):	L3.0
D-1524	Visual Exam. (Relative):	CLR&SPRK
D-1524	Sediment Exam. (Relative):	TRACE
D-877	Dielectric Breakdown (kV):	33
D-1816	Dielectric Breakdown(kV mm-C):	
D-924	Power Factor-25C (%):	
D-924	Power Factor-100C (%):	
D-1298	Specific Gravity (Relative):	.873

Diagnostics

DGA Key Gas / Interpretive Method: (Most recent sample)	Hydrogen within normal limits (500ppm). Methane within normal limits (100ppm). Ethane within normal limits (50ppm). Ethylene within normal limits (50ppm). Acetylene within normal limits (1ppm). Carbon Monoxide within normal limits (1000ppm). Carbon Dioxide within normal limits (10000ppm). Oxygen within normal limits (20000ppm).
DGA Rogers Ratio Method:	Ratios not applicable - gases do not exceed limits.
DGA Cellulose (paper) Insulation:	CO2/CO Ratio not applicable-neither gas exceeds its flag point.
DGA IEEE/ANSI (C57.104-1991): (Two most recent samples)	
Moisture in Oil:	Moisture content acceptable for continued use (35 max@<=69KV).
Interfacial Tension:	**IFT below limit, reclamation or disposal of oil recommended (25 min@<=69KV).**
Acid Number:	**Acid number exceeds limit, reclamation or disposal of oil recommended (.20 max@<=69**
Color Number, Visual, and Sediment:	**Color number not acceptable, Visual acceptable, Sediment detected.**
Dielectric Breakdown:	D-877 value acceptable(26 min), D-1816 Not Analyzed.
* KV Class is 13.2 kV. Power Factor:	Not Analyzed.

OIL RE-REFINING CO., INC.

01 Bozarth
P.O. Box 1407
Woodland, WA 98674
EPA # WAD 980986012

24 Hour Emergency
(503) 286-8352
1-800-367-8894

No. 88057

Cust. I.D. _____
Call Back _____

Generator Name: Heaven Last Contact: Randy **Date** 10-20-00

Address: 5204 E. Marginal Way City: Seattle State: WA Zip: 98124 Phone: (206) 762-0850

Consigned To: Fuel Processors (503) 585-2567

Destination: 1420 N. Suttle Rd Portland or 97217

Via Carrier: Oil Re-Refining

Driver: Pat Truck No.: 8037 Miles Run:

Billing Address

Profile Date: 10-20-00

CK# P.O.#

Load Ticket #

Gallons	Description	Weight	Rate Per Gallon	Rate Per Hour	Charge Paid
1000	Transformer oil from tank 2 pick up #2				
110	transformer oil pick from tank 4 pick up #5				
	to ground 200' D				
	* Transported for recycling				
	Total				

Customer warrants that the waste petroleum products being transferred by the above collector do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at concentrations greater than 1000 PPM, PCB's at greater concentrations greater than 2 PPM (or 50 PPM with Manifest), or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (implementing the Federal Resource Conservation and Recovery Act) or by any equivalent State hazardous waste or hazardous substance classification program. Should laboratory tests find this waste product not in compliance with 40 CFR Part 261, customer (generator) agrees to pay for all disposal costs incurred.

S I X Steve A. Ellis Date 10/20/00

Generator Name Manson Const Location 5209 E Marginal Way South Seattle WA 98124

Generator Fills Out — Waste/Material Profile (One completed profile per product)

Description: Used Automotive Oil ☐ DIY Used Oil ☐ Machine Lubricating Oil ☐ Machine Tool Cutting and/or Cooling Fluids (including used solutions) containing at least 1% petroleum ☐ Hydraulic Oil ☐ Brake Fluid ☐ Refrigeration Oil ☐ Fuel Filters ☐ Oil Filters ☐ Antifreeze ☐ Oil Used as a Non-Contact Heat Transfer Media ☐ Solvent ☐

Unused Fuels and Type: Description(where and how generated)_____

Water/Petroleum Mixtures: Type_____

Percent Water 1 % Actual Calculation ☐ Process Knowledge ☑ Clear Tube ☐ Kolor Kut ☐

Transformer Oil PCB under 2PPM (1600 Gals) ☑ PCBs under 50PPM (110 Gals) ☑ Date tested 8-10-00 Tests attached ☑

Generator hereby certifies that no dilution of oil containing PCBs has occurred below any regulatory threshold :

Signed:_____

Oily Solids: Tank Sludge ☐ Sump Sludge ☐ Containinated Soil ☐ Spill Cleanup Material ☐

Other (Specify) :_____ **Attach all pertinent documents**

Solvent : Flash Point_____

Has generator mixed solvent with any hazardous waste? Yes ☐ No ☐ If yes, Stop Call Supervisor

For all wastes or materials, provide the following information: Field Data

Sniffer Test Passed ☐ Failed ☐ Date Tested_____ Clor-D-Tect Test Results_____ PPM Date Tested_____ PH_____

Is Material Mixed With Hazardous Waste? Yes ☐ No ☑ If yes, Stop call Supervisor

Corrosive? Yes ☐ No ☑ **Reactive?** Yes ☐ No ☑ **Toxic?** Yes ☐ No ☑ **Listed?** Yes ☐ No ☑ **Flash Over 140°F** Yes ☑ No ☐

List All Pertinent Information(Describe process of waste generation in detail) Attach all Documentation

Including all MSDS sheets & test results; Transformer oil with PCB content Pumped out from old transformers

Analytical Attached

Name and Title of Person providing information: SHAWN Hillis EQ MGR

Facility E.P.A. REG # WAD 007941282 4 **HW Generator Status: LQG** ✓ **SQG** ____ **CEG** ____

Certification & Guarantee

As generator of the material described in this profile (or authorized representative of the generator), I hereby certify that the information contained in this document is accurate and complete. I further certify that this material has NOT been mixed with any contaminants including, without limitations, Pesticides and waste listed or identified as hazardous waste under RCRA, or, if mixing has occurred, this material has been mixed with an ignitable-only hazardous waste in compliance with the used oil mixture rule, or C.E.G. exemption. In the event that the material described in this document is in fact hazardous waste, I hereby guarantee to pay all costs necessary for proper analysis, transportation, storage and disposal.

Signed Shawn Hillis Title EQ MGR Date 10/20/00

Receiving Facility Data

Is Waste/Material Acceptable for Processing?: Yes ☐ No ☐ Explanation:_____

Accepted ☐ Signed_____ Title_____ Date_____

Rejected ☐ Reason _____

Returned to Generator? Yes ☐ No ☐ Transported To:_____

OIL RE-REFINING CO., INC.

701 Bozarth
P.O. Box 1407
Woodland, WA 98674
EPA # WAD 980986012

24 Hour Emergency
(503) 286-8352
1-800-367-8894

No. 87455

Cust. I.D. 6115

Call Back

Generator Manson Construction Date 7-26-00

5209 E. Marginal Way Seattle Wa 98134 206-762 0850

Address | Name | Of | State | Zip | Contact | Phone

Consigned To: ORRCO

Destination: Portland Or.

Via Carrier: ORRCO

Driver: Mark Truck No.: 2326 Miles Run:

Billing Address

Profile Date:

CK# P.O.#

Load Ticket # 997080

Gallons	Description	Weight	Rate Per Gallon	Rate Per Hour	Charge Paid
1,52	1 <2 PPM T-Oil Taken At Harbor				
3100	<50 PPM				
4,6	21 Total Analytic Attached + customer profile				
	* Transported for recycling				
	Total				

Customer warrants that the waste petroleum products being transferred by the above collector do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at concentrations greater than 1000 PPM, PCB's at greater concentrations greater than 2 PPM (or 50 PPM with Manifest), or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (implementing the Federal Resource Conservation and Recovery Act) or by any equivalent State hazardous waste or hazardous substance classification program. Should laboratory tests find this waste product not in compliance with 40 CFR Part 261, customer (generator) agrees to pay for all disposal costs incurred.

Signed X Shan Hillis Date 7-26-2000

PLEASE INCLUDE
INVOICE # AND
CUSTOMER ID #
WITH PAYMENT

OIL RE-REFINING COMPANY
P.O. BOX 1407
OODLAND, WA 98674
PHONE 503-286-8352
EPA #WAD980986012

INVOICE

Invoice Number: 139308

Invoice Date: 08/04/00

Page: 1

Sold To: Manson Construction
PO Box 24067
Seattle, WA
98124

Ship To: Manson Construction
5209 E Marginal Way S
Seattle, WA
98134

Ship Via.: ORRCO
Ship Date: 07/26/00
Due Date.: 08/14/00
Terms....: NET 10 DAYS

Cust I.D.....: 6115
P.O. Number..:
P.O. Date....: 07/26/00
Job/Order No.: 997080
Salesperson..:

Item	I.D./Desc.	Ordered	Shipped	Unit	Price	Net	TX
1	Mineral Oil	4621.00	4621.00	GAL.	0.2500	1155.25	E
1	Truck & Driver 10 hrs	10.00	10.00	HRS	65.0000	650.00	E

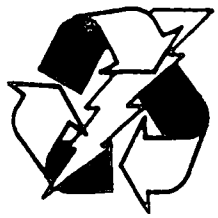
RECEIVED
AUG 1
MANSON CONSTRUCTION

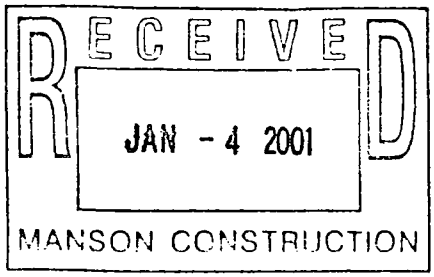
ll us for more information on Services we
e to help you in your recycling needs.
YCLING TODAY, FOR A BETTER TOMORROW

Subtotal:	1805.25
Tax.....:	0.00
Payments:	0.00
Total...:	1805.25

Coleman/Calbag Utility Recovery

TRANSFORMER & SUBSTATION
REMOVAL AND DISMANTLING





JANUARY 2, 2001

MR. RANDY THORSEN
MANSON CONSTRUCTION CO.
5209 EAST MARGINAL WAY SOUTH
P.O. BOX 24067
SEATTLE, WA 98124

DEAR MR. THORSEN:

ON OCTOBER 24, 2000 WE RECEIVED THE FOLLOWING ITEMS FROM MANSON CONSTRUCTION CO.:

UNIT#	SERIAL#	UNIT#	SERIAL#	UNIT#	SERIAL#
1	703892	4	5026575	7	229376
2	703893	5	UNKNOWN	8	109527B
3	703894	6	2305997	9	4222
10	76A220010				

WE FINISHED SCRAPPING THESE ITEMS ON OCTOBER 27, 2000. YOU CAN RETIRE THEM FROM YOUR INVENTORY.

ON NOVEMBER 2, 2000 WE RECEIVED THE FOLLOWING 2 ITEMS FROM MANSON CONSTRUCTION CO.:

UNIT#	SERIAL#	UNIT#	SERIAL#
17	76A431368	41	GEH1772

WE FINISHED SCRAPPING THESE ITEMS ON DECEMBER 1, 2000. YOU CAN RETIRE THEM FROM YOUR INVENTORY.

SINCERELY,

Nancy Coleman

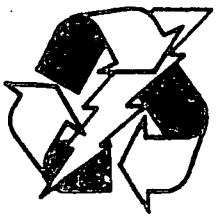
NANCY COLEMAN

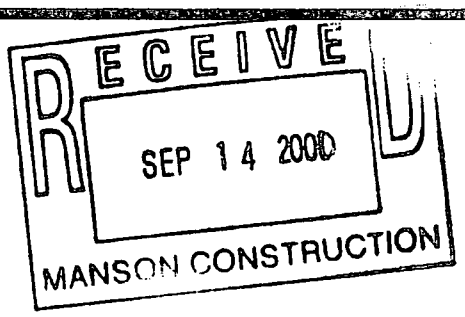
t/h

4705 TURNER RD. S.E. SALEM, OREGON 97301 PHONE: 503.364.5476 FAX: 503.364.3339 ccur@teleport.com

Coleman/Calbag Utility Recovery

TRANSFORMER & SUBSTATION
REMOVAL AND DISMANTLING





SEPTEMBER 11, 2000

SHAUN HILLIS
MANSON CONSTRUCTION CO.
5209 EAST MARGINAL WAY SOUTH
SEATTLE, WASHINGTON 98134

DEAR MR. HILLIS:

WE RECEIVED THE FOLLOWING TRANSFORMERS FROM MANSON CONSTRUCTION COMPANY ON JULY 28, 2000, BILL OF LADING #207872 AND #208248.

NUMBER	SERIAL #	NUMBER	SERIAL #	NUMBER	SERIAL #
11	703891	13	703890	15	2297057
12	703889	14	2297058	16	4680071

WE FINISHED SCRAPPING THESE ITEMS ON AUGUST 2, 2000. YOU CAN RETIRE THEM FROM YOUR INVENTORY.

SINCERELY,

Nancy Coleman

NANCY COLEMAN

t/h

4705 TURNER RD. S.E. SALEM, OREGON 97301 PHONE: 503.364.5476 FAX: 503.364.3339 ccur@teleport.com

Coleman/Calbag Utility Recovery

TR SFORMER & SUBSTATION
RE VAL AND DISMANTLING

DECEMBER 27, 2001

MANSON CONSTRUCTION
5209 E MARGINAL WAY S.
SEATTLE, WA 98124

RON SEARS DELIVERED THE FOLLOWING ITEMS ON DECEMBER 27, 2001.

SERIAL NUMBER

8922679
9063623
9486795
9029520

RECEIVED BY COLEMAN CALBAG UTILITY RECOVERY

NANCY COLEMAN DECEMBER 27, 2001

Nancy Coleman

4705 TURNER RD. S.E. SALEM, OREGON 97301 PHONE: 503.364 5476 FAX: 503.364.3339 ccur@teleport.com